We claim:

1. A process for the production of ferric oxide precipitates having a selected particle size, comprising selecting a combination of a temperature and a seeding ratio, and conducting said process at pressures above atmospheric to obtain ferric oxide precipitates of the selected particle size.

2. The process of claim 1 wherein the seeding ratio is the ratio of the weight of seed solid to the weight of expected unseeded precipitate product.

3. The process of claim 1 wherein the temperature is from about 100°C to about 300°C.

4. The process of claim 1 wherein the temperature is from about 175°C to about 240°C.

5. The process of claim 1 wherein the seeding ratio is from about 20% to about 2000%.

6. The process of claim 1 wherein the seeding ratio is from about 50% to about 500%.

7. The process of claim 1 wherein the selected particle size is from about 0.1 to about 10 microns.

8. The process of claim 1 wherein the selected particle size is from about 0.15 to about 2.5 microns.

9. The process of claim 1 wherein the ferric oxide precipitates are obtained in from about one minute to about 6 hours.

10. The process of claim 1 wherein the ferric oxide precipitates are obtained in from about 30 minutes to about 1 hour.

11. The process of claim 1 wherein said process is conducted at a pressure of from about 10 to about 1300 psig.

12. The process of claim 1 wherein said process is conducted at a pressure of from about 100

to about 500 psig.

13. The process of claim 1 wherein the ferric oxide precipitates are obtained from a feed solution comprising iron solubilized in one of nitric acid, sulfuric acid, and hydrochloric acid.

14. The process of claim 1 wherein the ferric oxide precipitates are obtained from a feed solution comprising iron solubilized in nitric acid.

15. The process of claim 13 wherein the feed solution has an iron concentration of from about 5 g/L up to the onset of crystallization of the ferric salt.

16. The process of claim 13 wherein the feed solution has an iron concentration of from about 10 g/L to about 100 g/L.

17. The process of claim 13 wherein the feed solution has an iron concentration of from about 30 g/L to about 60 g/L.

18. The process of claim 13 wherein the feed solution has a free acid concentration of from about 0 g/L to about 150 g/L.

19. The process of claim 13 wherein the feed solution has a free acid concentration of from about 30 g/L to about 70 g/L.

20. The process of claim 1 wherein the ferric oxide precipitates have an L* of about 40 to about 60.

21. The process of claim 1 wherein the ferric oxide precipitates have an L* of about 49 to about 55.

22. The process of claim 1 wherein the ferric oxide precipitates have an a* of about 10 to about 40.

23. The process of claim 1 wherein the ferric oxide precipitates have an a* of about 19 to about 33.

24. The process of claim 1 wherein the ferric oxide precipitates have an b* of about 5 to about 35.

25. The process of claim 1 wherein the ferric oxide precipitates have an b* of about 12 to about 28.

26. The process of claim 1 conducted in a batch or a continuous fashion.

27. The process of claim 1 wherein the ferric oxide precipitates have a smooth surface texture.